

REMARKS

In view of the above amendments and following remarks, reconsideration of the objections and rejections contained in the Office Action of October 3, 2006, and withdrawal of the final Office Action, is respectfully requested.

Objections and Rejections Based Upon "Said First and Second Adhesive Holding Regions Not Overlapping Each Other" Limitation

The Examiner objected to the drawings as not illustrating the feature of the first and second adhesive holding regions not overlapping each other, as claimed in claims 27 and 44 presented in the last response. Further, the Examiner asserted that the claims were not supported by either a specific and substantial asserted utility or a well established utility. Further, the Examiner asserted that the claims were not supported by either a specific and substantial asserted utility and therefore one would not know how to use the claimed invention. Further, the Examiner asserted that the claims failed to comply with the written description requirement for this same reason. However, the Examiner's position is clearly incorrect.

While the above amendments have been proposed to address the Examiner's concerns, it is noted that the specification provides clear and definite support for the limitation. For this reason, it is submitted that the Examiner's rejections and objections are clearly in error and must be withdrawn. As a result, the finality of the Office Action should be withdrawn and all amendments proposed above be entered as a matter of right.

The limitation to which the Examiner objects is that the first and second adhesive regions are described as not overlapping. Such non-overlapping regions are shown in Fig. 1, where first and second adhesive holding regions 21 and 22 are clearly illustrated as non-overlapping by the different hatching. This is confirmed by the sectional view of Fig. 2.

The requirement for a specific and substantial asserted utility is for the claim as a whole, not for any one particular aspect of the claim. Further, noting MPEP §2107(II)(B)(1), "if the applicant has asserted that the claimed invention is useful for any particular practical purpose (i.e., it is a "specific and substantial utility") and the assertion would be considered credible by a person of

ordinary skill in the art, do not impose a rejection based on lack of utility." Utility of the invention is for example described in section 6 on page 3 of the original specification, which states in part "an adhesive holding region which is composed of two adhesive holding layers having different levels of tackiness facilitates the handling of the circuit board in accordance with a presence or absence of components mounted on a FPC." Accordingly, a specific and substantial utility has been asserted for the claimed subject matter. Accordingly, the Examiner's rejection on this basis under 35 U.S.C. §101 and §112 are misplaced, and should be withdrawn.

It would seem that the Examiner's concern is rather that this manner of describing an aspect of the invention may not be supported by the specification; this is not a utility consideration, but an enablement consideration. However, it is clear that the original specification fully describes and enables this limitation.

The Examiner's attention is directed to section 33 of the original specification, describing how the first and second adhesive holding regions 21 and 22 (in this example) are formed by a single adhesive material 12a, as an example. An undulating pattern of a surface of a mold 71 is transferred to the adhesive material 12a forming the separate regions. Turning to sections 34-36, it is described how the mold is formed. In particular, a metal mask 709 is used to oppose the pressing surface 711 so as to have an opening only in a region corresponding to the second adhesive holding region 22. A first shot-blast is then performed, and the mask 711 is replaced with another mask 713 having an opening only in the region corresponding to the first adhesive holding region 21, as described. Then second shot-blasting is performed with particles having a different particle diameter than that of the first shot-blasting. This allows an undulating pattern having a greater surface coarseness than that of the second adhesive holding region to be formed in the region of the pressing surface 711 corresponding to the first adhesive holding region 21. When this mold is used against the adhesive material, it forms the first and second adhesive holding regions 21 and 22.

Thus it is readily seen that by the employment of the masks there is clear separation and thus no overlap between the first and second regions as formed on the mold, and as impressed upon the adhesive material.

On page 5 of the Office Action, the Examiner states that the disclosure drawn to the elected species cannot be relied upon as a written description to support this limitation because these regions overlap. However, clearly they do not, as described above. They do not extend over each other, and they do not cover a part of each other. This is because of the masking separates one from the other.

Nonetheless, in order to avoid any further discussion regarding this issue, it has been proposed above to simply recite the first and second adhesive regions as being coplanar. However, this does not take away from the fact that the Examiner's objections and rejections are incorrect and must be withdrawn.

Rejections Based on Prior Art

The Examiner rejected claims 27-29, 34, 38, 42 and 44 as being clearly anticipated by Kuhns, U.S. Patent Publication 2004/0119593. Further, claims 30-33 were rejected as being unpatentable over Kuhns in view of Otaki, U.S. 2003/0059565 and Oura, U.S. 6,286,207. Claims 39 and 40 were further rejected as being unpatentable over Kuhns in view of Nishikawa. Claim 40 was also rejected as being unpatentable over Kuhns in combination with Mikami, U.S. 2003/0178124. Claim 43 was further rejected as being unpatentable over Kuhns in view of Suzuki, U.S. 6,110,595. However, none of these references properly discloses or suggests a combination of limitations now presented in independent claims 27 and 44.

Both of these independent claims has been amended to recite that the first and second adhesive holding regions are coplanar (instead of overlapping as discussed above). Further, they both have been amended to recite that the first adhesive holding region and the second adhesive holding region have different surface coarseness. The limitation with respect to coplanarity was presented previously in claim 34, dependent from claim 27. The limitation with respect to the first and second adhesive holding regions having different surface coarseness was previously presented in dependent claim 33. Accordingly, these limitations have been previously considered, and their addition to the independent claims does not represent any new consideration by the Examiner. However, they do serve to clearly define over the prior art that has been proposed by the Examiner.

The Examiner rejected claim 33, reciting that the first adhesive holding region and the second adhesive holding region have different surface coarseness, based upon the combination of Kuhns, Otaki and Oura. The Examiner further acknowledged that Kuhns does not disclose or suggest that the first adhesive holding region and the second adhesive holding region have different surface coarseness. Kuhns is in fact directed to a tamper-indicating radio frequency identification antenna and sticker. The specification discusses the fact that it is useful to have two different portions of an adhesive layer 19 with differing adhesive strengths. However, there is no disclosure and no suggestion of any different surface coarseness between these two different areas.

Otaki discloses a hologram element including a hologram layer 107, a first pressure-sensitive adhesive layer 106 and a second pressure-sensitive adhesive layer 109 (see Fig. 3A). Otaki further discloses that the first and second adhesive layers 106 and 109 may be composed of a main component and a tackifier, and that the mixing ratio of the tackifier to the main component can be varied so as to create different adhesive strengths. However, there is no disclosure or suggestion of a different surface coarseness between the adhesive layers 106 and 109.

The disclosure of Oura relates to a method of directly forming a metal layer on a resin layer. More specifically, it discloses a method of treating the surface of the resin layer in order to have a roughness within a predetermined range in order to increase the adhesive strength between the resin layer and the metal. The Examiner states that Oura has a first adhesive holding regions "the boundary between the adhesive and the interposer" before the circuit board is treated. The Examiner further states that it has a second adhesive holding region, which is the boundary between the adhesive 199 and the interposer 191 after the circuit board is treated. Further, these are alleged to have different surface undulation characteristics. Further, they are alleged to have different surface coarseness.

This interpretation by the Examiner is not understood. The boundary between the adhesive and the interposer, in the example referred to by the Examiner, noting Fig. 34, has the surface of the interposer 191 treated such that the surface roughness thereof ranges between 0.1 and 10 microns. Wiring 192 is formed on the thus-treated surface which results in adhesive strength between the wiring 192 and the surface of the substrate 191 to be strong. Further, the adhesive strength between

adhesive 199 and the surface of the interposer is high when the IC chip 193 is bonded to the interposer. There is no boundary between the adhesive and the interposer before the circuit board is treated. The circuit board is treated before the adhesive is applied. There does not appear to be any first and second adhesive holding regions having any different surface coarseness. If this rejection is maintained, a detailed explanation of exactly what corresponds to which adhesive holding region, and how they constitute a teaching of applying different surface coarsenesses in a different reference, is requested.

Rather, it seems clear that in *Oura* the treated surface of the interposer increases the adhesive strength between adhesive 199 and interposer 191, as well as between the metal wiring 192 in the interposer 191. There is no disclosure or suggestion of roughing the surfaces of the adhesive 199 with two different surface coarsenesses, however.

Accordingly, there is no teaching in any of the references which have been cited by the Examiner for the proposition of providing first and second adhesive holding regions with different surface coarseness that do not overlap or are coplanar. There is nothing to suggest to one of ordinary skill in the art to, in fact, provide different tackiness regions through the use of surface coarseness variation. There is no indication that any such method might be suitable in the product of *Kuhns*. The Examiner's rejection, further, appears to be an entirely hindsight attempt at a reconstruction of Applicants' invention without any proper teachings from the prior art.

Accordingly, it is respectfully submitted to be clear that the independent claims as proposed to be amended above clearly distinguish over the prior art cited by the Examiner. Such limitations have already been considered by the Examiner, and as such the above amendments should be entered. Further, the application as a whole should be placed into condition for allowance. Allowance of the application as a whole is accordingly requested.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance, and the Examiner is requested to pass the case to issue. If the Examiner should have any comments or suggestions to help speed the prosecution of this application, the Examiner is requested to contact Applicants' undersigned representative.

Respectfully submitted,

Tatsuki NOGIWA et al.

By:



Nils E. Pedersen

Registration No. 33,145

Attorney for Applicants

NEP/krp
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
February 5, 2007